AMSAT News Service Weekly Bulletins
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AMSAT NEWS SERVICE
ANS-065

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor@amsat.org

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SB SAT @ AMSAT $ANS-065.01
AO-51 Configuration Plans Still Affected by Eclipses

AMSAT News Service Bulletin 065.01
>From AMSAT HQ SILVER SPRING, MD.
March 6, 2011
To All RADIO AMATEURS
BID: $ANS-065.01

AO-51 Command Station, Mark Hammond, N8MH reported that AO-51 is nearing the end of eclipse periods. Analysis of telemetery from the satellite shows that AO-51 is still not experiencing full sunlight, most likely due to spacecraft orientation and sun angle. On-board temperatures are climbing and the Command Team continues to monitor and tweak various power management parameters to take advantage of the solar power that is available.

Helpful reports from users (about the transmitters turning OFF) and telemetry confirm that AO-51 is still seeing a few minutes of "dark-ness" every orbit.

AO-51 was configured for "normal operational mode" on March 3, and will remain in this configuration until further notice. That includes the V/U repeater the Packet BBS with L-band uplink:

AO-51 Schedule as of March 3:

Mode V/U FM Voice Repeater (no PL tone needed)
Uplink: 145.920 MHz FM
Downlink 435.300 MHz FM

Mode L/U PacSat BBS
Uplink: 1268.703 MHz FSK 9k6 baud
Downlink 435.150 MHz FSK 9k6 baud

The Packet BBS will be open for use, but the Command Team asks for your cooperation (by standing by and not entering the queue) if you share the footprint with a command station (most often on the East coast of the US). Should conditions improve, there will be an attempt support some S-band operations--but for now that seems unlikely.

The latest AO-51 status and configuration news will be posted on the amsat-bb and on the AO-51 Control Team News web page at: http://www.amsat.org/amsat-new/echo/CTNews.php

[ANS thanks Mark Hammond, N8MH for the above information]

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SB SAT @ AMSAT $ANS-065.02
ARISSat-1 to be Activated Aboard ISS on April 12

AMSAT News Service Bulletin 065.02
>From AMSAT HQ SILVER SPRING, MD.
March 6, 2011
To All RADIO AMATEURS
BID: $ANS-065.02

The ARISSat-1 satellite, presently still inside the ISS, will be turned on and use an external antenna on 12 April 2011 to celebrate the 50th anniversary of Yuri Gagarin's first manned space flight. AMSAT will support this event and issue certificates to those stations reporting reception of the ARISSat-1 signals. Roscosmos has announced that the satellite will be deployed into orbit during the next EVA in July of this year.

Latest ARISSat-1 News
http://www.arissat1.org/v3/

Get your color ARISSat-1 Frequency Guide here.
http://tinyurl.com/4t497t2 (AMSAT web)

ARISSat-1 Presentation Slides (~1MB)
http://tinyurl.com/4n4pzkm (AMSAT web)

SouthGate streaming videos about the April 12 Yuri's Night plus links to more resources can be found at:
http://tinyurl.com/49jnbg2 (SouthGate ARC)

[ANS thanks the ARISSat-1 Team for the above information]

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SB SAT @ AMSAT $ANS-065.03
AMSAT Heading For Dayton Hamvention

AMSAT News Service Bulletin 065.03
>From AMSAT HQ SILVER SPRING, MD.
March 6, 2011
To All RADIO AMATEURS
BID: $ANS-065.03

The 2011 Dayton Hamvention will be held this year May 20-22. This year featured AMSAT attractions include:

+ Operational ARISSat-1 Prototype
+ Astronaut Doug Wheelock, KF5BOC, will be attending as a special

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  guest of the ARRL and AMSAT. Doug will visit the AMSAT booth on
  both Friday and Saturday.
+ AMSAT theme for 2011 is "Providing Education Through Amateur
  Satellites"
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The latest AMSAT at Hamvention news will always be posted at:
http://www.amsat.org/amsat-new/hamvention/2011/Dayton.php

This is the 60th year of the Dayton Hamvention, sponsored by DARA (Dayton Amateur Radio Association). As has been the case for the many years the Hamvention will be at the Hara Arena Complex on the north side of Dayton. Further information on Hamvention 2011, including advance ticket sales and motel accommodations, can be found at http://www.hamvention.org.

AMSAT will occupy the same booths (444-449) in Ball Arena, right across from the ARRL area and just inside the door from the Satellite Demonstration area. Plan to visit all of the AMSAT activities!

AMSAT Activities at Dayton

AMSAT has planned a number of great activities during Hamvention. There will also be a number of new offerings at the AMSAT booth as well as Specials, follow the link for Booth Activities to see them.

The AMSAT theme for 2011 is "Providing Education Through Amateur Satellites". We will have multiple exhibits of the new AMSAT satellites on display.

ARISSat-1

ARISSat has been completed and is in orbit waiting for the July, 2011 EVA to deploy it into orbit. We will have on display an operational prototype. Tune your HT to 145.950 MHz to hear the FM beacon.

AMSAT Thursday Night Get-together

We will be at Tickets Pub & Eatery this year. The menu is great and a nice change of pace. Check it out at TicketsPub.com

AMSAT Forum

The AMSAT Forum will be on Saturday May 21.

AMSAT/TAPR Banquet

The fifth annual AMSAT/TAPR Banquet will be Friday night May 20 at the Kohler Presidental Banquet Center. The speaker for the event has not been finalized.

Seating is limited and reservations are required. Go to the Dayton Banquet 2011 link:
http://www.amsat.org/amsat-new/hamvention/2011/Banquet.php to find information about reservations and additional information.

AMSAT Hotel

AMSAT has only a few rooms left in the reserved block at the Country Inn & Suites in Fairborn, OH. Please contact Martha at the AMSAT office for room price and availability during Hamvention. Priority for rooms will be given to those volunteering to work in the AMSAT booth for multiple 2 hour shifts during Hamvention. The phone number for the AMSAT office is 301-589-6062. Other hotels in the immediate area of the Country inn & Suites include the Fairfield

Inn, Ramada Inn, Hampton Inn, Fairborn Holiday Inn, Red Roof Inn
and the Homewood Suites if additional accommodations are needed.

[ANS thanks Gould Smith, WA4SXM for the above information]

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SB SAT @ AMSAT $ANS-065.04
NASA Glory Satellite and Three CubeSats Lost Vandenberg Launch Failure

AMSAT News Service Bulletin 065.04
>From AMSAT HQ SILVER SPRING, MD.
March 6, 2011
To All RADIO AMATEURS
BID: $ANS-065.04

NASA announced on Friday that the March 4 launch from Vandenberg AFB
of a Taurus XL rocket carrying the Glory Satellite Mission and three
student cubesats from the University of Kentucky, University of Mon-
tana, and University of Colorado failed to reach orbit. Telemetry
indicated the fairing, the protective shell atop the Taurus XL rocket,
did not separate as expected about three minutes after launch.

+ Glory was a new NASA Earth-observing satellite intended to improve
  our understanding of how the sun and tiny atmospheric particles
  called aerosols affect Earth's climate.

+ KySat-1, University of Kentucky was designed to bring satellite
  command, control, and communications into Kentucky classrooms
  using mobile and portable stations.

+ Explorer-1 [Prime], University of Montana was designed to make
  space weather observations of the Van Allen Radiation Belts.

+ Hermes, University of Colorado was designed to test high speed
  communications from small satellites.

The NASA Press Release can be found on-line at:
http://www.nasa.gov/home/hqnews/2011/mar/HQ_11-050_N0_Glory.html

A news item of this launch failure is also available from the
UniverseToday.com website at: http://tinyurl.com/5rf3b7g

See also:
http://tinyurl.com/63htzgr (National Journal with streaming video)
http://tinyurl.com/4uvne77 (Lompoc Record news coverage)
http://tinyurl.com/4ksdare (LA Times)
http://spaceflightnow.com/taurus/glory/110304gloryfail/
http://tinyurl.com/6fntsfw (SpaceFlightNow.com streaming video)
http://tinyurl.com/6c46mt5 (NASA Press conference on SpaceFlightNow)

[ANS thanks NASA and the news websites cited above for this
 information]

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SB SAT @ AMSAT $ANS-065.05
Pakistan Developing Student CubeSat Projects

AMSAT News Service Bulletin 065.05
>From AMSAT HQ SILVER SPRING, MD.
March 6, 2011

To All RADIO AMATEURS
BID: $ANS-065.05

Pakistan's Institute of Space Technology (IST) has initiated a space program aimed at designing, building, launching and succesfully operating a standard CubeSat.

The program is led by Communication Systems Engineering (CSE) Department with support from Aeronautics & Astronautics as well as Materials Department. As a Space technology institute and research center, one of the objectives of IST is to design and develop miniature satellites for technology evaluation and in-orbit demonstration and to provide students with hands-on experience in space technologies, to meet the work force requirement for the national space program. Institute of Space Technology is the first academic institution of Pakistan to initiate the small satellite development program.

New Pakistan Satellite ICube-1 Specifications include:

Beacon   436.8475 MHz, CW, 100mW
Downlink 437.490 MHz, FSK, AX.25, 1200bps, 600mW
Uplink   145.835 MHz, FSK, AX.25, 1200bps

Plans are for a launch in the 3rd quarter of 2011.

Full information can be found on ICube-1 web pages:
http://www.icube.org.pk/

Student Satellite Project
http://www.ist.edu.pk/student_satellite.html

Institute of Space Technology (IST)
http://www.ist.edu.pk/

[ANS thanks Pakistan IST and SouthGate ARC News Site for the
 above information]

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SB SAT @ AMSAT $ANS-065.06
Satellite Shorts From All Over

AMSAT News Service Bulletin 065.06
>From AMSAT HQ SILVER SPRING, MD.
March 6, 2011
To All RADIO AMATEURS
BID: $ANS-065.06

+ Happy 27th birthday this past week to Oscar 11 which was launched on March 1, 1984. Clive, G3CWV noted in his UO-11 report that the satellite wasn't transmitting on its birthday but did resume its AFSK FM ASCII Telemetry on 145.826 MHz on March 3. The satellite is now transmitting during eclipses, although signals are weaker at those times. This indicates that there is still some capacity remaining in the battery. Excellent signals have been reported from stations located around the world, and good copy obtained from decoded telemetry frames. More information can be found on-line at: http://www.g3cwv.co.uk/oscar11.htm.

+ Congratulations to Scott N6PG on his first satellite contacts last week via AO-51 with W7JPI, and ND9M/mm, and K0VK. Scott was using a VX-8R and an Elk antenna. Scott has posted a video of the contact at: http://www.youtube.com/watch?v=foCs_eoIL1A

+ The Southeastern VHF Society has issued their last call for the 2011 SVHFS Conference Papers which need to be received by March 11. Please send to N2CEI, Steve Kostro at: SVHFS2011@downeastmicrowave.com.
  They also have one or two more presentation slots open so if you would like to make one; published paper not required. Contact Steve with your presentation also. Deadline for hotel reservations is March 29. A link for hotel reservations can be found on the conference page at: http://www.svhfs.org. 15th annual Southeastern VHF Society Conference to be held in Huntsville, Alabama on April 29th and 30th, 2011.

+ Alex OZ9AEC has produced three videos showing reception of weak 70cm Amateur Radio satellite signals using the AMSAT-UK FUNcube SDR Dongle. Alex used the FUNcube Dongle with a standard 8 ele Wimo X-yagi, preamp and ~40 meters of coax down to the shack to receive these satellite signals in the 70cm satellite segment 435-438MHz. The beacons run about 100mw output. Watch at: http://tinyurl.com/6f7hdag (SouthGate)

+ UniverseToday.com has posted a gallery of STS-133 launch photos at: http://tinyurl.com/6gvbuqc Also at UniverseToday.com are high resolution, pan-able images of the Space Shuttle: http://tinyurl.com/4fma9x8
  Rick, K7TEJ posted this link to a video of the STS-133 launch that was captured from a passing airliner: http://www.youtube.com/watch?v=GE_USPTmYXM

+ Bob, W7LRD plans to run a AMSAT information table at the Mike and Key Amateur Radio Club 30th Electronics Show and Fleamarket on Saturday, March 12, 2011 at Puyallup, Washington. Ticket Sales open at 8:00 AM; Doors open at 9:00 AM.

+ NASA has released a cool sound track of the sounds of thousands of cometary dust particles pelting Stardust-NExT as it flew past Comet Tempel at 9.8 km/sec, or 24,000 MPH. The audio was recorded by an instrument aboard the spacecraft called the Dust Flux Monitor which measures sound waves and electrical pulses from dust impacts. Listen at: http://tinyurl.com/5rorrou (UniverseToday.com)

[ANS thanks everyone for the above information]

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SB SAT @ AMSAT $ANS-065.07
NASA, Make Magazine Announce Competition to Fly Student Experiments

AMSAT News Service Bulletin 065.07
>From AMSAT HQ SILVER SPRING, MD.
March 6, 2011
To All RADIO AMATEURS
BID: $ANS-065.07

In a press release titled, "NASA Launches 2011 Nationwide Technology Space Competition for Education", NASA says it's Emerging Commercial Space Office (ECSO) is teaming with Make Magazine, and Teachers in Space to help develop spaceflight kits that high school teachers and students can build and fly on suborbital flights.

The NASA/Make competition is designed to inspire curiosity and create interest in science, technology, engineering and mathematics (STEM) among classroom teachers and their students. Contenders will be invit-

ed to submit ideas, concepts and prototypes for kits that teachers and students can build for future spaceflights.

Competition rules are simple. Kits should use components that are likely to be available at most high schools, and submitted experiments must be self-contained and fit in a standard Cubesat container. To make kits accessible to students nationwide, part of the challenge is to be able to build these kits for under $100, the kind of funds that could be raised by a school bake sale.

The first experiment kits to be selected will fly aboard the Excelsior STEM mission, a commercial unmanned suborbital mission sponsored by Teachers in Space and scheduled to fly in 2011. Experiment kits for the Excelsior STEM mission will be assembled by teachers at a Suborbital Flight Experiment Workshop to be held August 1-5, 2011 at the NASA Dryden Flight Research Center's AERO Institute in Palmdale, Calif.

The full NASA Press Release can be found on-line at:
http://www.nasa.gov/centers/ames/news/releases/2011/11-14AR.html

Make Magazine says more details about the challenge, including rules, prizes, etc., will be coming soon. If you'd like to participate in the MAKE Space Challenge, get on the mailing list! They will notify you the details for challenge have been finalized and when the application process opens. You can sign up for the Space Challenge mailing list at: http://blog.makezine.com/space

[ANS thanks NASA and Make Magazine for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office. And, with that please keep in mind that you realize you are getting old when your body begins to make the same noises as your coffee maker.

73,
This week's ANS Editor,
JoAnne Maenpaa, K9JKM